

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	09/724,685	
			Filing Date	11-28-2000	
			First Named Inventor	Steven G. Reed	
			Art Unit	1645	
Examiner Name	Rodney P. Swartz				
Sheet	1	of	32	Attorney Docket Number	GSK006C13/CRX411C13

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	1	US-4,235,877	11/25/1980	Fullerton	
	2	US-4,436,727	03/13/1984	Ribi	
	3	US-4,603,112	07/29/1986	Paoletti et al.	
	4	US-4,751,180	06/14/1988	Cousens et al.	
	5	US-4,769,330	09/06/1988	Paoletti et al.	
	6	US-4,777,127	10/11/1988	Suni et al.	
	7	US-4,866,034	09/12/1989	Ribi	
	8	US-4,877,611	10/31/1989	Cantrell	
	9	US-4,897,268	01/30/1990	Tice et al.	
	10	US-4,912,094	03/27/1990	Myers et al.	
	11	US-4,935,233	06/19/1990	Bell et al.	
	12	US-4,946,778	08/07/1990	Ladner et al.	
	13	US-5,145,684	09/08/1992	Liversidge et al.	
	14	US-5,240,856	08/31/1993	Goffe et al.	
	15	US-5,504,005	04/02/1996	Bloom et al.	
	16	US-5,543,158	08/06/1996	Ruzandra et al.	
	17	US-5,565,213	10/15/1996	Nakamori et al.	
	18	US-5,567,434	10/22/1996	Szoka	
	19	US-5,580,579	12/03/1996	Ruddy et al.	
	20	US-5,583,112	12/10/1996	Kensil et al.	
	21	US-5,599,545	04/04/1997	Stanford et al.	
	22	US-5,616,500	04/01/1997	Stanford et al.	
	23	US-5,639,653	06/17/1997	Bloom et al.	
	24	US-5,714,593	02/03/1998	Tsumita et al.	
	25	US-5,780,045	07/14/1998	McQuinn	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	09/724,685
				Filing Date	11-28-2000
				First Named Inventor	Steven G. Reed
				Art Unit	1645
				Examiner Name	Rodney P. Swartz
Sheet	2	of	32	Attorney Docket Number	GSK006C13/CRX411C13

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	26	US-5,783,368	07/21/1998	Jacobs, Jr. et al.	
	27	US-5,795,587	08/22/1998	Gao et al.	
	28	US-5,804,212	09/08/1998	Illum	
	29	US-5,811,128	09/22/1998	Tice et al.	
	30	US-5,814,344	09/29/1998	Tice et al.	
	31	US-5,817,473	10/06/1998	Das et al.	
	32	US-5,820,883	10/13/1998	Tice et al.	
	33	US-5,853,763	12/29/1998	Tice et al.	
	34	US-5,856,462	01/05/1999	Agrawal	
	35	US-5,928,647	07/27/1999	Rock	
	36	US-5,942,252	08/24/1999	Tice et al.	
	37	US-5,985,287	11/16/1999	Tan et al.	
	38	US-5,955,077	09/21/1999	Andersen et al.	
	39	US-6,001,361	12/14/1999	Tan et al.	
	40	US-6,034,218	03/07/2000	Reed et al.	
	41	US-6,037,135	03/14/2000	Kubo et al.	
	42	US-6,113,918	09/05/2000	Johnson et al.	
	43	US-6,290,969	11/08/2001	Reed et al.	
	44	US-6,355,257	03/12/2002	Johnson et al.	
	45	US-6,458,366	10/01/2002	Reed et al.	
	46	US-6,465,633	10/15/2002	Skeiky	
	47	US-6,555,653	04/29/2003	Alderson et al.	
	48	US-6,592,877	07/15/2003	Reed et al.	
	49	US-6,613,881	09/02/2003	Alderson et al.	
	50	US-6,962,710	11/08/2005	Reed et al.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	09/724,685	
			Filing Date	11-28-2000	
			First Named Inventor	Steven G. Reed	
			Art Unit	1645	
Examiner Name	Rodney P. Swartz				
Sheet	3	of	32	Attorney Docket Number	GSK006C13/CRX411C13

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	51	EP 345242	12/06/1989	Geysen et al.		
	52	EP 519218	12/23/1992	Singh et al.		
	53	FR 2244539	04/18/1975	Mitsui Pharmaceuticals		
	54	FR 2265402	10/24/1975	Mitsui Pharmaceuticals		
	55	GB 2200651	08/10/1988	Al-Sumidale		
	56	GB 2298862	09/18/1996	Astra Aktiebiolog		
	57	WO 88/06591 Part 1	09/07/1988	Shinnick et al.		
	58	WO 88/06591 Part 2	09/07/1988	Shinnick et al.		
	59	WO 89/01973	03/09/1989	Panicali et al.		
	60	WO 89/06280	07/13/1989	Peterson et al.		
	61	WO 91/02805 Part 1	03/07/1991	Graber et al.		
	62	WO 91/02805 Part 2	03/07/1991	Graber et al.		
	63	WO 91/18926	12/12/1991	Awapatent		
	64	WO 92/07243	04/30/1992	Kalamasz		
	65	WO 92/14154	08/20/1992	Istrate		
	66	WO 94/00153	01/06/1994	Prieels et al.		
	67	WO 94/00228	01/06/1994	Cazabonne		
	68	WO 94/14069	06/23/1994	Das et al.		
	69	WO 94/20078	09/15/1994	Samian et al.		
	70	WO 94/23701	10/27/1994	Perrin et al.		
	71	WO 95/17210	06/29/1995	Momin et al.		
	72	WO 95/17511 Part 1	06/29/1995	Jacobs, Jr. et al.		
	73	WO 95/17511 Part 2	06/29/1995	Jacobs, Jr. et al.		
	74	WO 95/31216	11/23/1995	Lowrie		
	75	WO 96/02555	02/01/1996	Krieg		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	09/724,685	
			Filing Date	11-28-2000	
			First Named Inventor	Steven G. Reed	
			Art Unit	1645	
			Examiner Name	Rodney P. Swartz	
Sheet	4	of	32	Attorney Docket Number	GSK006C13/CRX411C13

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	76	WO 96/06638	03/07/1996	Betbeder et al.		
	77	WO 96/28551	09/19/1996	Titball et al.		
	78	WO 96/33739	10/31/1996	Garcon et al.		
	79	WO 96/38591	12/05/1996	Guegler et al.		
	80	WO 97/09248	03/13/1997	Redd et al.		
	81	WO 97/09249	03/13/1997	Szabo		
	82	WO 97/24447	10/07/1997	Song et al.		
	83	WO 98/07868 Part 1	02/26/1998	Schupp et al.		
	84	WO 98/07868 Part 2	02/26/1998	Schupp et al.		
	85	WO 98/07868 Part 3	02/26/1998	Schupp et al.		
	86	WO 98/16645 Part 1	04/23/1998	Reed et al.		
	87	WO 98/16645 Part 2	04/23/1998	Reed et al.		
	88	WO 98/16645 Part 3	04/23/1998	Reed et al.		
	89	WO 98/16646 Part 1	04/23/1998	Reed et al.		
	90	WO 98/16646 Part 2	04/23/1998	Reed et al.		
	91	WO 98/16646 Part 3	04/23/1998	Reed et al.		
	92	WO 98/44119 Part 1	10/08/1998	Andersen et al.		
	93	WO 98/44119 Part 2	10/08/1998	Andersen et al.		
	94	WO 98/44119 Part 3	10/08/1998	Andersen et al.		
	95	WO 98/44119 Part 4	10/08/1998	Andersen et al.		
	96	WO 98/53075 Part 1	11/26/1998	Alderson et al.		
	97	WO 98/53075 Part 2	11/26/1998	Alderson et al.		
	98	WO 98/53076 Part 1	11/26/1998	Alderson et al.		
	99	WO 98/53076 Part 2	11/26/1998	Alderson et al.		
	100	WO 99/09186 Part 1	02/25/1999	Gicquel		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				<b>Application Number</b>	09/724,685
				<b>Filing Date</b>	11-28-2000
				<b>First Named Inventor</b>	Steven G. Reed
				<b>Art Unit</b>	1645
				<b>Examiner Name</b>	Rodney P. Swartz
<b>Sheet</b>	5	of	32	<b>Attorney Docket Number</b>	GSK006C13/CRX411C13

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	101	ALTSCHUL, et al., "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs," Nuc. Acids Res. (25):3389 – 3402 (1977)	
	102	ALDERSON, et al. "Expression Cloning of an Immunodominant Family of Mycobacterium tuberculosis Antigens Using Human Cd4+ T Cells," J. Exp. Med. 191(3): 551-559 (2000)	
	103	ANDERSEN, "Effective Vaccination of Mice against Mycobacterium tuberculosis Infection with a Soluble Mixture of Secreted Mycobacterial Proteins," Infection and Immunity 62(6):2536-2544 (1994)	
	104	ANDERSEN, et al., "Identification of Immunodominant Antigens of Mycobacterium tuberculosis," Scand. J. Immunol. 6:823-831 (1992)	
	105	ARNON, "Synthetic Peptides as a Basis for Vaccine Design," Molecular Immunology 28(2):209-215 (1991)	
	106	AUSUBEL, et al., "Isolation of Proteins for Microsequence Analysis," Current Protocols in Molecular Biology, Wiley & Sons, NY, pp. 10.19.1-10.19.12 (1993)	
	107	BANCHEREAU, et al. "Dendritic cells and the control of immunity," Nature 392:245-251 (1998)	
	108	BARNES, et al., "Immunoreactivity of a 10-kDa Antigen of Mycobacterium tuberculosis," J. of Immunology 148(6):1835-1840 (1992)	
	109	BARRERA, et al., "Humoral Response to Mycobacterium Tuberculosis in Patients with Human Immunodeficiency Virus Infection" Tubercle and Lung Disease 73(4):187-91 (1992)	
	110	BATZER, et al., "Enhances evolutionary PCR using oligonucleotides with inosine at the 3' terminus" Nuc. Acids Res. 19:5081 (1991)	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				<b>Application Number</b>	09/724,685
				<b>Filing Date</b>	11-28-2000
				<b>First Named Inventor</b>	Steven G. Reed
				<b>Art Unit</b>	1645
				<b>Examiner Name</b>	Rodney P. Swartz
<b>Sheet</b>	6	<b>of</b>	32	<b>Attorney Docket Number</b>	GSK006C13/CRX411C13

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	111	BERKNER, "Development of Adenovirus Vectors for the Expression of Heterologous Genes," Biotechniques 6:616-627 (1988)	
	112	BOESEN et al., "Human T-Cell Responses to Secreted Antigen Fractions of Mycobacterium tuberculosis," Infection and Immunity 63(4):1491-1497 (1995)	
	113	BORREMANS et al., "Cloning, Sequencing Determination, and Expression of a 32-Kilodalton-Protein Gene of Mycobacterium tuberculosis," Infection and Immunity 57(10):3123-3130 (1989)	
	114	BOWIE, et al., "Deciphering the Message of Protein Sequences: Tolerance to Amino Acid Substitutions" Science 257:1306-10 (1990)	
	115	BRANDT, et al. "ESAT-6 subunit vaccination against Mycobacterium tuberculosis," Infection and Immunity 68(2):791-795 (2000)	
	116	BRANDT, et al. "The Protective Effect of the Mycobacterium bovis BCG Vaccine is Increased by Coadministration with the Mycobacterium tuberculosis 72-Kilodalton Fusion Polyprotein Mtb72F in M. tuberculosis-Infected Guinea Pigs" Infection and Immunity 72(11):6622-32 (2004)	
	117	CAMPOS-NETO, et al., "Cutting Edge: CD40 Ligand Is Not Essential for the Development of Cell-Mediated Immunity and Resistance to Mycobacterium tuberculosis," J. Immunol. 160(5): 2037-2041 (1988)	
	118	CARTER and WELLS, "Dissecting the catalytic triad of a serine protease," Nature 332: 564-568 (1988)	
	119	CARTER, "Peptide Analysis Protocols," Methods in Molecular Biology, Chapter 1.1, 36:193-206 (1994)	
	120	CHAITRA, et al., "Defining putative T cell epitopes from PE and PPE families of protein of M. tuberculosis with vaccine potential" Vaccine 23(10):1265-72 (2005)	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				<b>Application Number</b>	09/724,685
				<b>Filing Date</b>	11-28-2000
				<b>First Named Inventor</b>	Steven G. Reed
				<b>Art Unit</b>	1645
				<b>Examiner Name</b>	Rodney P. Swartz
<b>Sheet</b>	7	<b>of</b>	32	<b>Attorney Docket Number</b>	GSK006C13/CRX411C13

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	121	CHAITRA, et al., "HLAA0201-restricted cytotoxic T-cell epitopes in three PE/PPE family proteins of M. tuberculosis" Scand. J. of Immunology 67(4):411-17 (2008)	
	122	CHAN and KAUFMANN, Tuberculosis: Pathogenesis, Protection and Control, Chap. 24, ASM PRESS (1994)	
	123	CHEN, et al., "T Cells for Tumor Therapy can be Obtained from Antigen-loaded Sponge Implants" Cancer Res. 54: 1065-1070 (1994)	
	124	CIRILLO, et al., "Isolation and characterization of the aspartokinase and aspartate semialdehyde dehydrogenase operon from mycobacteria," Molecular Microbiology 11(4): 629-639 (1994)	
	125	COHEN, "Naked DNA Points Way to Vaccines" Science 259: 1691 – 1692 (1993)	
	126	COLBERE-GARAPIN, et al., "A New Dominant Hybrid Selective Marker for Higher Eucaryotic Cells," J. Mol. Biol. 150:1 -14 (1981)	
	127	COLE et al., "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence," Nature 393: 537-544 (1998)	
	128	COLER, et al. "Molecular cloning and immunologic reactivity of a novel low molecular mass antigen for Mycobacterium tuberculosis," J. Immunol. 161(5):2356-2364 (1998)	
	129	COLLINS, "New Generation of tuberculosis vaccines," Clinical Microbiology Newsletter 23 (3):17-23 (2001)	
	130	CONTENT, et al., "The Genes Coding for the Antigen 85 Complexes of Mycobacterium tuberculosis and Mycobacterium bovis BCG Are Members of a Gene Family: Cloning, Sequence Determination, and Genomic Organization of the Gene Coding for Antigen 85-C of M. tuberculosis," Infection and Immunity 59:3205-3212 (1991)	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			<b>Application Number</b>	09/724,685	
			<b>Filing Date</b>	11-28-2000	
			<b>First Named Inventor</b>	Steven G. Reed	
			<b>Art Unit</b>	1645	
			<b>Examiner Name</b>	Rodney P. Swartz	
<b>Sheet</b>	8	of	32	<b>Attorney Docket Number</b>	GSK006C13/CRX411C13

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	131	COOMBES, et al., "Single dose, polymeric, microparticle-based vaccines: the influence of formulation conditions on the magnitude and duration of the immune response to a protein antigen," Vaccine 14: 1429 – 1438 (1996)	
	132	CORUZZI, et al., "Tissue-specific and light-regulated expression of a pea nuclear gene encoding the small subunit of ribulose-1,5-biphosphate carboxylase," EMBO 3: 1671 – 1680 (1984)	
	133	CREIGHTON, Protein Structure: A Practical Approach, pp. 184-186 (1989)	
	134	CREIGHTON, Proteins: Structures and Molecular Properties, pp. 314-315 (1984)	
	135	DALEINE, et al., "Preliminary evaluation of a Mycobacterium tuberculosis lipoligosaccharide (LOS) antigen in the serological diagnosis of tuberculosis in HIV seropositive and seronegative patients," Tubercle and Lung Disease, 76( 3): 234-39 (1995)	
	136	DEVEREAUX, et al., "A Comprehensive System of Sequence Analysis Tools for the VAX," Nuc. Acids Res. 12: 387-395 (1984)	
	137	FISHER-HOCH, et al., "Protection of rhesus monkey from fatal Lassa fever by vaccination with a recombinant vaccinia virus containing the Lassa virus glycoprotein gene" PNAS USA 86: 317- 321 (1989)	
	138	FLEXNER, et al., "Vaccinia Virus Expression Vectors" Vaccine 8: 17-21 (1989)	
	139	FLEXNER, "Attenuation and immunogenicity in primates of vaccinia virus recombinants expression human interleukin-2," Ann. NY. Acad. Sci. 569: 86-103 (1989)	
	140	FLYNN, et al., "An essential Role for Interferon $\gamma$ in Resistance to Mycobacterium tuberculosis Infection," J. of Experimental Medicine 178: 2249-2254 (1993)	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			<b>Application Number</b>	09/724,685	
			<b>Filing Date</b>	11-28-2000	
			<b>First Named Inventor</b>	Steven G. Reed	
			<b>Art Unit</b>	1645	
			<b>Examiner Name</b>	Rodney P. Swartz	
<b>Sheet</b>	9	of	32	<b>Attorney Docket Number</b>	GSK006C13/CRX411C13

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	141	GARCIA, "Nucleotide Sequence and Expression of pneumococcal autolysin gene from its own promoter in E. Coli," Gene (43):265-292 (1986)	
	142	GOODMAN-SMITKOFF, et al., "Defining minimal requirements for antibody production to peptide antigens," Vaccine 8: 257-262 (1990)	
	143	GRANT, et al., "Expression and Secretion Vectors for Yeast," Methods Enzymol. 153: 516 – 544 (1987)	
	144	GREENSPAN and Di CERA, "Defining epitopes: It's not as easy as it seems," Nature Biotechnology 17: 936-937 (1999)	
	145	GRIFFIN, et al., "Animal Models of Protective Immunity in Tuberculosis to Evaluate Candidate Vaccines," Trends in Microbiology 3(11): 418-423 (1995)	
	146	GUZMAN, et al., "Efficient Gene Transfer into Myocardium by Direct Injection of Adenovirus," Cir. Res. 73: 1202-1207 (1993)	
	147	Harrison's Principles of Internal Medicine, vol. 1, pages 1004-1014 (1998)	
	148	Harrison's Principles of Internal Medicine, vol. 1, pages 1019-1023 (1998)	
	149	HARTMAN and MULLIGAN, "Two dominant-acting selectable markers for gene transfer studies in mammalian cells," PNAS USA 85: 8047-51 (1988)	
	150	HENDRICKSON, et al., "Mass Spectrometric Identification of Mtb81, A Novel Serological Marker for Tuberculosis," J. Clin. Microbiol 38(6):2354-2361 (2000)	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*